APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/692,849	10/27/2003	Katsuya Ogawa	Q77796	9276

23373 7590 03/26/2004		EXAMINER
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ART UNIT	PAPER NUMBER
2876	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/692,849	OGAWA, KATSUYA
	Examiner	Art Unit
	Lisa M Caputo	2876

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☒ All   b)☐ Some * c)☐ None of:

         1.☒ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date *3/19/04*.

4)☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

U.S. Patent and Trademark Office

PTOL-326 (Rev. 1-04)   Office Action Summary   Part of Paper No./Mail Date 03202004

DETAILED ACTION

Claim Objections

1.   Claims 2, 4, 7, 9, 12, and 14 are objected to because of the following

informalities:

Regarding claims 2, 4, 7, 9, 12, and 14, last line of each claim: Replace "forth"

with --fourth--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1, 6, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by

Fuyama (U.S. Patent No. 5,363,296).

Fuyama teaches an electronic cash register having macro-keys. Regarding

independent claims 1, 6, and 11, Fuyama discloses a keystroke trapping system,

method, and program that comprises a first means for adding 1 to a limit counter of a

depressed function key corresponding to a function number (key code) and a second

means for comparing value of the limit counter of the function key corresponding to the

function number with a corresponding limit count (via the use of a clock to determine the

date limit count of the use of a key). Further, Fuyama discloses that FIG. 1 is a block

diagram of an arrangement of an electronic cash register in accordance with a first

embodiment of the present invention, which includes a keyboard 1-1, a mode switch 1-2, an arithmetic operation controller 1-3, a memory 1-4, and a display unit 1-5. Arranged on the keyboard 1-1 are such necessary keys as a ten-key, an item registration key, a total key, a subtotal key and macro keys so that, when one of such keys is operated, a key code corresponding to the operated key is generated and provided to the arithmetic operation controller 1-3. The arithmetic operation controller 1-3, which has a read-only memory (ROM) therein, stores in the ROM programs for processing various transactions or operations for the present electronic register. Connected to the arithmetic operation controller 1-3 are, in addition to the keyboard 1-1, the mode switch 1-2, the memory 1-4 and the display unit 1-5. The mode switch 1-2 is used to designate the operational mode of the electronic register such as registration (REG), manager registration (MGR), inspection (X), account adjustment (Z) or set (P). Data for the mode switch, prior to starting the respective transaction processing programs, are read out by the arithmetic operation controller 1-3. An outside appearance of the mode switch 1-2 is shown in FIG. 2. The memory 1-4 has such an interior structure as shown in FIG. 3, that is, has a work area 3-1 for interior calculation, an operator information file 3-2 for storing therein a manager level and a name in association with the ID of each operator, a macro key information file 3-3 for storing therein, when a key code entered from the keyboard 1-1 is from the macro key, macro key information for prescribing the operation of the macro key in association with the associated macro key number, an item information file 3-4 for storing therein item names and unit prices associated with respective item codes so that an item code entered from the keyboard can be read out

for its item registration, and a report data file 3-5 for storing therein report data... A

second embodiment is shown in FIG. 13. The second embodiment includes, in addition

to the constituent elements of the first embodiment of FIG. 1, a clock LSI 13-6 newly

provided. With the present arrangement, an arithmetic operation controller 13-3 can

read a time from the clock LSI 13-6. FIG. 17 is a buffer for storing therein a key

operating time within the work area. The buffer has fields of year (17-1), month (17-2),

day of the month (17-3), day of the week (17-4) and hour/minute (17-5) at which the

operator operates the electronic register. Explanation will be made as to the operation

of the second embodiment. In the present embodiment, a time range check code can be

set as the macro key set data so that the operation of the associated macro key can be

made valid only in an operation allowable time band corresponding to the time range

check code of the macro key. Shown in FIG. 18 is a structure of the time range check

code set in a memory 13-4 of the electronic register as the macro key information. The

data of the time range check code includes a function code (92) 18-1 indicative of the

time range check code and a time range data 18-2. The time range check code is set in

the memory 13-4 as the macro key information according to the flowchart of FIG. 9 in

the same manner as in the first embodiment. For example, when it is desired to set a

time range of from "9:30" to "10:00" as the macro key operation allowable time band,

the operation of the step 9-5 causes data "9209301000" to be written in the macro key

setting field 4-1.

FIG. 24 is a flowchart for explaining the operation of reading a key code from the

keyboard 13. More in detail, when each key is operated on the keyboard 13-1, this

causes a key code corresponding to the operated key to be generated and sent to the

arithmetic operation controller 13-3. The arithmetic operation controller 13-3 judges

whether or not the associated key code is from a macro key (step 24-1). When

determining that the key code is not from the macro key, the arithmetic operation

controller executes the associated processing program corresponding to the key code

as the code of the non-macro-key in the same manner as in the prior art (step 24-2).

When the key code is from the macro key, the controller reads time data from the clock

LSI 13-6 and stores it in the key operation time storage buffer (FIG. 17) in the work area

(step 24-3). The controller performs the subsequent operations (1) to (6) as in the first

embodiment 1. (1) The controller reads set data corresponding to the associated macro

key from the macro key setting file 3-3 and writes it in the work areas 5-1 and 5-2 for

use of internal calculation (step 24-4). (2) The controller checks the set data counter 5-

2 for the set data written on the work areas (step 24-5). When determining that the

counter is not 0, since this means the macro set data for the associated macro key is

not set yet, the controller terminates the reading operation of the macro key in question.

(3) When the set data counter 5-2 is not 0 in the above Paragraph (2), the controller

sets the step counter 5-3 at 1 and also sets the macro key processing flag 5-4 indicative

of the macro key processing being activated (step 24-6). (4) The controller reads the

macro key set data 5-1 at the address corresponding to the step counter 5-3 (step 24-7)

and executes the associated processing in the same manner as the macro key set data

processing of FIG. 25 (step 24-8). After the above execution, the controller compares

the value of the step counter 5-3 with that of the set data counter 5-2 (step 24-9). When

finding a coincidence therebetween, which indicates the end of the final set data, the

controller goes to a Paragraph (6) (to be explained later) to terminate the operation of

reading the macro key in question. (5) When the controller fails to find the coincidence

between the value of the step counter 5-3 and that of the set data counter in the above

Paragraph (4), the controller adds 1 to the step counter 5-3 (step 24-10) and goes again

to the above Paragraph (4). (6) The controller resets the macro key processing flag 5-4

indicative of the macro key processing being activated (step 24-11) and terminates the

macro key reading operation in question. FIG. 25 shows a flowchart for explaining the

macro key set data processing (step 24-8) in FIG. 24. As already explained in the above

Paragraph (4), the controller reads the macro key set data at the address corresponding

to the step counter 5-3, and then judges whether or not the set data indicates the time

range check code (step 25-1). When the present data is not the time range check code,

the controller executes the other-key code processing (step 25-6). When the present

data is the time range check code, the controller reads the operation time data 17-5

from the key operation time storage buffer (FIG. 17) in the work area (step 25-2) and

then compares the operation time data 17-5 of the macro key in question with the

operation allowable time band corresponding to the time range check code of the macro

key (step 25-3). When the macro key operation time is within the operation allowable

time band corresponding to the time range check code of the associated macro key, the

controller terminates the time range check code processing. When the macro key

operation time is out of the operation allowable time band corresponding to the time

range check code of the associated macro key, the controller stores the value of the set

data counter 5-2 in the step counter 5-3 (step 25-4), transfers an error message to the

display 13-5 (step 25-5), and then terminates the macro key set data processing (see

Figures 1-25, col 6 line 40 to col 11 line 60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 2-3, 7-8, and 12-13 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fuyama. The teachings of Fuyama have been discussed above.

Regarding claims 2-3, 7-8, and 12-13, Fuyama teaches the means for

determining the function key limits, but Fuyama does not disclose that a 1 is added to a

counter if the coincidence is found, as Fuyama teaches that a 1 is added to the counter

if a coincidence is not found. It is well known in the art, however, that the use of a

counter is used in different circumstances and operations.

Hence, In view of the teaching of Fuyama and with ordinary skill in the art, it

would have been obvious to one of ordinary skill in the art at the time the invention was

made to employ the system so that a 1 is added to the counter if a coincidence is found.

4.   Claims 4-5, 9-10, and 14-15 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Fuyama in view of Tanaka (U.S. Patent No. 4,935,608). The

teachings of Fuyama have been discussed above.

Regarding claims 4-5, 9-10, and 14-15, although Fuyama does teach certain

pertinent macro keys such as total, subtotal, and cashier, Fuyama fails to specifically

teach the Cancel key, Clear key, Void key, No Sale key, and Transaction Void key.

Tanaka teaches a card authorization terminal. Tanaka discloses a key

arrangement in Figure 3 including ten-keys 12, a set key 113, and a clear key 114 (see

Figure 3, col 3, lines 25-35). It is well known in the art that keys such as Void, Cancel,

Transaction Void, and No Sale are art recognized equivalents to clear and set keys.

In view of the teaching of Tanaka, it would have been obvious to one of ordinary

skill in the art at the time the invention was made to employ function numbers for such

keys as Cancel, Clear, Void, Transaction Void, and No Sale because these keys are

conventional and are well known in the art to be components of a cash register

keyboard system. These keys are helpful in efficient transactions and thus are

favorably included in the system.

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to *Lisa M. Caputo* whose telephone number is **(571) 272-
2388**. The examiner can normally be reached between the hours of 8:30AM to 5:00PM
Monday through Friday. If attempts to reach the examiner by telephone are
unsuccessful, the examiner's supervisor, Michael G. Lee can be reached at **(571) 272-
2398**. The fax phone number for this Group is (703) 872-9306.

Communications via Internet e-mail regarding this application, other than those
under 35 U.S.C. 132 or which otherwise require a signature, may be used by the
applicant and should be addressed to [**lisa.caputo@uspto.gov**].

*All Internet e-mail communications will be made of record in the application file.
PTO employees do not engage in Internet communications where there exists a
possibility that sensitive information could be identified or exchanged unless the record
includes a properly signed express waiver of the confidentiality requirements of 35
U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published
in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG
89.*

   Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.

LMC
March 20, 2004

DIANE I. LEE
PRIMARY EXAMINER